

REMARKS

Claims 1-35 are pending. Claims 1-35 have been rejected. Claims 1, 12, and 23 have been amended herein.

Applicants appreciate the courtesy extended by the Examiner to the Applicants' representatives during the telephonic interview on May 30, 2007, the content of which is further addressed below.

Claims 1, 4, 7-13, 15, 18-23, 25, 29-31, 34, and 35 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pub. No. 2003/0018681 (Subramanian). It is respectfully submitted that claims 1, 4, 7-13, 15, 18-23, 25, 29-31, 34, and 35 are patentable for the reasons set forth below.

As amended, claim 1 recites "...generating a list of valid exception handlers, said list protected from alteration during program execution..." Furthermore, the exception handler is executed after "determining if the exception handler is unaltered." Support for this amendment may be found at least on page 8 of the specification. As discussed in the interview, such a feature is useful, for example, to prevent the creation of a rogue exception handler during a malicious attack. The exception handler is thus executed only if the exception handler is considered valid by virtue of its inclusion in the list of *unaltered* exception handlers in the list of valid handlers.

As further explained during the interview, Subramanian fails to disclose or suggest the creation of a valid exception handler list that is *protected from alteration* during a malicious attack, thus failing to distinguish between valid and altered exception handlers. Subramanian discloses that when an exception is received, it is determined if a low level exception handler exists that can resolve the exception. If there is an exception handler for the exception, then it is executed (e.g., paragraphs [0025] – [0032]). In other words, Subramanian receives an event (an exception), determines an exception handler for the event, and then executes the exception handler. If the exception handler exists for the event, then Subramanian assumes that the exception handler is valid. Subramanian does not consider whether the exception handler merely appears to be valid but in fact has been hijacked by a malicious attack. Therefore, for example, if the attacker is able to associate an unauthorized or invalid exception handler with an event (e.g., by modifying the look up table), this

unauthorized or invalid exception handler will be executed when the event is received. Claim 1 avoids the execution of an attacker's exception handler by determining if the exception handler is in fact valid. During the interview, the examiner indicated that pending further review, the amended claim appears to overcome the Subramanian reference.

Claims 12 and 23 recite similar features to those described with claim 1. Therefore, claims 1, 12, and 23, and their dependent claims including claims 4, 7-11, 13, 15, 18-22, 25, 29-31, 34, and 35, are patentable for the same reasons. Withdrawal of the rejection of claims 1, 4, 7-13, 15, 18-23, 25, 29-31, 34, and 35 under 35 U.S.C. § 102(e) is respectfully requested.

Claims 3, 5, 14, 16, 26, 27, and 32 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Subramanian in view of Kukol (U.S. Patent No. 5,628,016). Claims 3, 5, 14, 16, 26, 27, and 32 variously depend from independent claims 1, 12, and 23, and are therefore patentable for the reasons set forth above. Kukol fails to cure the deficiencies of Subramanian. Kukol generally describes exception handling, but does not teach or suggest determining if an exception handler is valid by comparing the exception handler to a list of valid exception handlers protected from alteration during program execution, determining if the exception handler is unaltered and otherwise determining that the exception handler is invalid. Therefore, withdrawal of the rejection of claims 3, 5, 14, 16, 26, 27, and 32 under 35 U.S.C. § 103(a) is respectfully requested.

Claims 6, 17, and 28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Subramanian in view of Bhansali (U.S. Publication No. 2002/0169999). Claims 6, 17, and 28 depend from independent claims 1, 12, and 23 respectively, and are therefore patentable for the reasons set forth above with respect to these claims. Bhansali fails to cure the deficiencies of Subramanian. Bhansali generally describes exception handlers, but does not teach or suggest determining if an exception handler is valid by comparing the exception handler to a list of valid exception handlers protected from alteration during program execution, determining if the exception handler is unaltered and otherwise determining that the exception handler is invalid. Therefore, withdrawal of the rejection of claims 6, 17, and 28 under 35 U.S.C. § 103(a) is respectfully requested.

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**PATENT
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PROCEDURE PURSUANT TO
37 CFR § 1.116**

In view of the foregoing amendments and remarks, Applicants submit that the above-identified application is in condition for allowance. Early notification to this effect is respectfully requested.

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